REMARKS

Claims 1-20 remain in the application.

As stated previously in the response filed on November 13, 2007, please note that the Office Action Summary sheet in the Disposition of the Claims section only lists claims 1-19; however, the application as filed included claims 1-20. The fact that claim 20 is included is verified in Section 1 of the Office Action where claim 20 is addressed.

Applicant respectfully requests that the Office Action Summary sheet be corrected.

35 U.S.C. 112 Rejection:

Claims 3, 6, 8-10, 16, and 18-20 were rejected under the first paragraph of 35 USC 112 for not complying with the enablement requirement. This rejection is respectfully traversed.

The Office action indicates on page 2 that the Examiner "maintains that the specification provides insufficient support as to how or why one of ordinary skill in the art would use the claimed invention". Applicant refers to the specification, at least page 6, line 15 through page 7, line 18, and to page 13, lines 2-12, for at least one explanation of how and/or why the feedback voltage signal is added to the input power signal. The Examiner's rejection relies on the fact that the Examiner can't seem to find an adder element in FIG. 2 and the one in FIG. 3 is not connected to the power signal, and further relies on the units being unequal. For examples of adder elements, the Examiner is directed to the specification, see at least page 6, lines 19-23. As for the argument relating to unequal units,

8

please note that claim 3 only calls for adding the two signals together. The signals don't have units, thus, can easily be added. For example, the specification describes one example embodiment where the two signals are currents. It is easy for one skilled in the art to understand how to add two currents together.

Additionally, the first paragraph of 35 USC 112 requires that the specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same. Subsequent court cases have held that this includes that the one skilled in the art has to be able to make the invention without undue experimentation. Also, the scope of enablement must only bear a "reasonable correlation" to the scope of the claims. It is respectfully submitted that Applicant's specification, as evidenced by the cited sections in the previous paragraph, bears at least a reasonable correlation to the scope of the claims. Applicant does not have to provide evidence sufficient to establish that an asserted utility is true "beyond a reasonable doubt.", evidence will be sufficient if, considered as a whole, it leads a person of ordinary skill in the art to conclude that the asserted utility is more likely than not true. Applicant respectfully submits that the cited sections of the specification prove that at least that the asserted utility is more likely than not true.

There is no requirement in 35 USC 112 that the specification teach why one would want to use the invention, yet that is what is being stated in the Office Action. It

is respectfully submitted that this requirement in the Office Action should be withdrawn. Accordingly, it is respectfully submitted that this rejection of claims 3, 6, 8-10, 16, and 18-20 should be withdrawn.

Claims 8 and 20 were objected to for being unclear because the claims discuss dividing an input power signal by the voltage feedback signal. The Office Action states that "the Examiner is not certain how this is integral to applicant's invention." The elements are integral to the invention because they are called for by claims 8 and 20. As indicated hereinbefore, the claims do not have to explain to the Examiner how the elements called for in the claim operate or to give a technical explanation of the elements. It is respectfully submitted that Applicant's specification bears at least a reasonable correlation to the scope of the claims.

The Examiner further indicates on page 9, that the specification does not provide sufficient support for one skilled in the art to derive any use from this value. Applicant refers to the specification on page 12, lines 8-22 and particularly to lines 11-14, and further refers to at least page 13, lines 2-12, to determine the usefulness of using the input power and the output voltage. If the Examiner is to be considered to know the usefulness to one skilled in the art and to be aware of the level of such skilled artisan, an affidavit detailing the Examiner's knowledge of the prior art is hereby requested under 37 C.F.R. 1.104(d)(2).

Claims 18-19 were objected to for being likewise unclear. The Office Action states on page 3 that "The

claims discuss comparing the input power signal to the feedback voltage. As stated above, this does not appear in the drawings and the examiner is uncertain how this concept is related to applicant's invention." It is respectfully submitted that this statement in the Office Action is NOT what is stated in claim 18. Claim 18 calls for the specific elements of "an amplifier coupled to receive the power signal and the feedback signal and responsively form a voltage on an output of the amplifier". Thus, claim 18 has more detailed elements than referred to in the Office Action.

Claim 19 includes, "a comparator coupled to receive the current sense signal and the voltage on the output of the amplifier and modulate a duty cycle of the drive pulses". Thus, claim 19 also includes more detailed elements than referred to in the Office action. Thus, claims 18 and 19 do not discuss anything in general terms but call for specific elements coupled in specific ways. As indicated hereinbefore, if the Examiner is unclear as to how these elements relate together, the Examiner is referred to the Specification for a better understanding of the details of the drawings and the operation thereof.

Claim 6 was rejected for being identical in scope to claim 9. This rejection is respectfully traversed. Please note that claim 9 includes an additional element (a power factor feedback signal) that is not included within claim 6. Thus, the scope of claims 6 and 9 are different. Accordingly, it is respectfully submitted that this rejection of claim 6 should be withdrawn.

Accordingly, it is respectfully submitted that all these rejections of claims 3, 6, 8-10, 16, and 18-20 should be withdrawn.

First 35 U.S.C. 103 Rejection:

Claims 1-2, 5, 7, 11, and 15 were rejected under 35 U.S.C. 103 over U.S. patent no. 5,481,730 issued to Brown et. al. ("the '730 patent") in view of U.S. patent no. 5,726,901 issued to Brown et. al. ("the '901 patent"). This rejection is respectfully traversed. Claim 1 calls for, among other things, calculating an input power of a power supply system; and using the input power to regulate an output voltage. Both the '730 and the 901 patents are silent on these elements of claim 1.

First, it is respectfully submitted that the references are improperly combined. The '730 patent does not teach or suggest that the input power should be calculated. In fact, the '730 patent teaches against the combination by teaching that the input current and voltage is merely monitored. There is no motivation to multiply these two signals together because the '730 patent teaches in column 2, lines 24-37, that it is important to measure the instantaneous bulk DC voltage and the average input current and report the status of these signal to the microcomputer. Thus, combining these two signals into one power signal would defeat the purpose of the '730 patent. Accordingly, there is no motivation leading one from the '730 patent to the '901 patent. The Office Action states on page 6, that it would have been obvious to combine the references because the '730 patent teaches multiplying the current and voltage to obtain the input power thus it would have been obvious to combine the '901 patent with the '730 patent. However, these statements in the Office Action are not supported by the references. The '730 patent does NOT teach or suggest that the input current and voltage should be multiplied

together to calculate the input power. As stated previously, the '730 patent teaches against such a multiplication, thus, there is no motivation to combine them. It is respectfully requested that the improper combination be withdrawn.

Even if the references are properly combined, claim 1 includes, calculating an input power of a power supply system, and using the input power to regulate an output voltage. Both the '730 and the '901 patents are silent on these elements of claim 1. The Office Action states on page 4, that the '730 patent discloses "determining an input voltage and current" and "Using the input voltage and current to regulate an output voltage". First, this is NOT what is called for by claim 1. Claim 1 calls for calculating the input power. Furthermore, the '730 patent teaches that the input voltage and current are monitored and status reports are provided to a computer. The '730 patent is silent on using these signals or the values thereof to calculate the input power and is silent on using the power signal to regulate the output voltage. The '730 patent clearly teaches in column 4, lines 56-62, that the '730 patent uses the value of the output voltage to control the output voltage and current. Even though the '730 patent teaches to monitor the input voltage and current, it is silent on calculating the input power and using the value of the input power to regulate the output voltage. It merely monitors such to determine operating parameters to test if the power supply is operating properly.

Further, the '901 patent is also silent on at least the element of using the calculated input power for regulating the output voltage. Note that the '901 patent teaches using the input power to drive an LED and is silent on using the

input power to control the drive pulses of a PWM (See FIG. 1 where the input power is not used by the PWM and in FIG. 2 where the input power is provided to the NE555 timer and not to the PWM). The Office Action indicates at the bottom of page 9 through the top of page 10, that the '901 patent teaches computing the product of the voltage and current and ... that this certainly comprises controlling the power levels. This last clause of the Office Action statement is not supported by the reference, but is merely speculation by the Examiner. Merely stating that it would have been obvious to do what applicants are claiming does not make up for the deficiencies of the relied on references. It is respectfully submitted that references are required to support a prior art rejection. Such omitted art is requested under MPEP 706.02(a) or an affidavit of the Examiner under 37 CFR 1.104(d)(2).

A patent is valid as a reference only for what is taught by the reference. It is respectfully submitted that in this case, the Examiner is modifying the teaching of the reference and adding the Examiner's desired outcome of the reference's teaching based on hindsight gained from Applicant's specification. Possibly, the Examiner is stating that it is inherent from the '901 references' teaching. However, inherency only applies when the result necessarily flows from the applied art. Inherency can not be established by possibilities or probabilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. It should be noted that a retrospective view of inherency can not substitute as actual teaching or suggestion that is not shown in the prior art. That which is inherent is not necessarily known and obviousness can not be predicated on what is unknown.

Accordingly, it is respectfully submitted that the combined relied on references are deficient in making claim 1 obvious.

Claim 2 depends from claim 1 and is believed to be allowable for at least the same reasons as claim 1.

Additionally, claim 2 calls for using the input power to modulate drive pulses to a power switch of the power supply system. The Office Action indicates on page 4 relating to claim 2 that the '730 patent "discloses that PVM signals may be used to control a power switch". However, claim 2 calls for using the input power to modulate drive pulses. The '730 patent does not teach or suggest these elements of claim 2. It is respectfully submitted that all elements of a claim must be used when examining a claim. Accordingly, it is respectfully submitted that the combined relied on references are deficient in making claim 2 obvious.

Claim 5 includes, among other things, form a power signal representative of an input power and coupling the power supply controller to form drive pulses to regulate the output voltage responsively to the power signal and the feedback signal. Neither of the combined relied on references teach nor suggest at least this element of regulate the output voltage responsively to the power signal and the feedback signal. As indicated in the traversal of the 35 U.S.C. 103 rejection of claim 1, both of the combined references are silent on regulate the output voltage responsively to such a power signal and the feedback signal. Accordingly, it is respectfully submitted that claim 5 is not made obvious by the combined relied on references.

Claims 7 and 11 depend from claim 5 and are believed to be allowable for at least the same reasons as claim 5.

Claim 15 calls for, among other features, an error block of the power supply controller coupled to receive the power signal, a feedback signal, and the current sense signal and responsively control the PWM controller to form the drive pulses. The Office Action states on page 5 at the bottom that the '730 patent discloses "receive the power signal, a feedback signal, and the current sense signal and responsively control the PWM controller" and cites to column 1, lines 56-63, column 3, lines 30-47, column 4, lines 56-67, and column 5, lines 5-29. None of the cited sections teach or suggest an error block coupled to receive the power signal, a feedback signal, and the current sense signal. Just because the '730 patent monitors the voltage and current signals does not mean that it forms a power signal that is representative of the input power and forms drive pulses responsively thereto. Additionally, the '901 patent teaches using the input power to drive an LED and is silent on using the input power to control the drive pulses of a PWM (See FIG. 1 where the input power is not used by the PWM and in FIG. 2 where the input power is provided to the NE555 timer and not to the PWM). The combined references do not teach or suggest coupling an error block to receive these signal and then to regulate the output voltage responsively thereto. Accordingly, it is respectfully submitted that the combined relied on references do not make claim 15 obvious.

Second 35 U.S.C. 103 Rejection:

Claims 4, 12, and 17 were rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further

in view of U.S. patent no. 5,315,533 issued to Stitch et. al. ("Stitch"). This rejection is respectfully traversed. Claim 4 depends from claim 1 and includes all the elements of claim 1 including the elements of calculating an input power of a power supply system, and using the input power to regulate an output voltage. As indicated in the traversal of the 35 U.S.C. 103 rejection of claim 1, the combined '730 and '901 patents are deficient in making obvious these elements of claim 1. Combining the '730 and '901 patents with Stitch does not make up for these deficiencies of the '730 and '901 patents.

Similarly, claims 12 and 17 depend from respective claims 5 and 15 and include all the elements of these respective claims. The deficiencies of the combined '730 and '901 patents relative to claims 5 and 15 are discussed in the traversal of the rejections thereof. Combining the '730 and '901 patents with Stitch does not make up for these deficiencies of the '730 and '901 patents. Accordingly, it is respectfully submitted that the combined relied on references can not make claims 4, 12, and 17 obvious.

Third 35 U.S.C. 103 Rejection:

Claim 14 was rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further in view of U.S. patent no. 5,502,370 issued to Hall et. al. ('Hall"). This rejection is respectfully traversed. Claim 14 depends from claim 5 and includes all the elements of claim 5. The deficiencies of the combined '730 and '901 patents relative to claims 5 are discussed in the traversal of the 35 U.S.C. 103 rejection of claim 5. Combining the '730 and '901 patents with Hall does not make up for these deficiencies of the '730 and '901 patents.

Fourth 35 U.S.C. 103 Rejection:

Claim 13 was rejected under 35 U.S.C. 103 over the '730 patent in view of the '901 patent and further in view of U.S. patent publication no. 2002/0071301 of inventor Michael John Kinghorn ("Kinghorn"). This rejection is respectfully traversed. Claim 13 depends from claim 5 and includes all the elements of claim 5. The deficiencies of the combined '730 and '901 patents relative to claims 5 are discussed in the traversal of the 35 U.S.C. 103 rejection of claim 5. Combining the '730 and '901 patents with Kinghorn does not make up for these deficiencies of the '730 and '901 patents. Accordingly, it is respectfully submitted that claim 13 is not made obvious by the combined relied on references.

The references cited but not relied upon were reviewed and are believed not to make obvious applicants' invention.

18

CONCLUSION

Applicant(s) made an earnest attempt to place this case in condition for allowance. In view of all of the above, it is believed that the claims are allowable, and that the case is now in condition for allowance, which action is earnestly solicited.

Although it is believed that no fees are due for this amendment, the Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 50-1086.

If there are matters which can be discussed by telephone to further the prosecution of this Application, the Examiner is invited to call the undersigned attorney/agent at the Examiner's convenience.

Respectfully submitted,
Francois Lhermite et al., by

Robert 7 / fightowe

ON Semiconductor Law Dept./MD A700 P.O. Box 62890

Phoenix, AZ 85082-2890

Robert F. Hightower Attorney for Applicant(s)

Reg. No. 36163 Tel. (602) 244-5603

Customer #: 64296